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AMERICAN DYESTUFF REPORTER

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AMERICAN DYESTUFF REPORTER

A Weekly Publication devoted to

DYESTUFFS, COLORS and ALLIED CHEMICALS

"Circulated Everywhere Dyestuffs are Used"

Vol. 5 New York, December 29, 1919 No. 26

EIGHT REASONS

With the Last Hearings on the Longworth Bill Now Over, Nothing Remains But to Wait

THE Senatorial dye hearings are over; not again will representatives of the industry have a chance to plead their cause in person, for there will be nothing further done until the Longworth bill is reported out by the Finance Committee. Recent developments, referred to on the editorial page of this issue, cause the outlook to appear somewhat darker for the chances of securing justice than it did last week, yet there is no reason as yet for giving up hope that the licensing plan will become one of our country's laws. If it dies aborning, however, there will be no difficulty in calling its executioner by the right name—Politics.

Further details of the testimony would be practically superfluous and a recital of them could do nothing to change the issue, which is now in the hands of the Finance Committee subcommittee and the Tariff Commission, which is trying to pull something out of the conflagration of partyism that roars and seethes down in the District of Columbia. Everything which could be done has been done; petitions have been presented, evidence has been given, arguments have been advanced. It was our intention to take up for comment this week some of the contentions of the licensing plan, and the testimony of one individual in particular, but even this, on second thought, has been abandoned. Enough has been said; there comes a time when further attempts to stir up supporters of any cause to give renewed battle are wasted and tiresome for that no longer is there anything to battle against. The last bolt has been shot, and the inhabitants of the beleaguered and belabored citadal take counsel among themselves on the question of capitulation or firing the magazines.

Both Longworth bill and licensing clause lie buried deep beneath layer upon layer of Senatorial committee. What will be hatched out, a benign Providence, the Government printing office and the Committeemen and the Tariff Commissioners alone know. We can but wait.

Therefore, partly because it forms one of the most complete and condensed statements of the case of the dye industry which has appeared to date—or is ever likely to appear in future—and partly for purposes of record, we present herewith the text of the memorandum filed with the Finance Committee by Henry Wigglesworth, of the General Chemical Company, New York, in behalf of the Manufacturing Chemists' Association of the United States:

The Manufacturing Chemists' Association, after having given the matter careful study, concludes that a complete dyestuff and coal tar chemical industry should be assured for the following eight reasons:

1. A well rounded, independent American dyestuff and related coal tar chemical industry is absolutely essential to national defense and national welfare. The close chemical relation between dyestuffs and explosives and poison gases makes the dyestuff industry quickly adaptable both in equipment and personnel to the manufacture of high explosives and material for chemical warfare.

2. The textile and other dye-consuming industries producing annually goods valued at five billions of dollars are absolutely dependent upon dyestuffs at all times and should have an ample domestic supply at hand without dependence on the foreign product.

3. The chemical industry needs the dyestuff and related coal tar chemical industry to aid the nation in efficient and economic use of its natural resources. It affords new outlets for the products of American manufacturers for domestic and foreign trade.

4. The chemical industry, and particularly the dyestuff and related coal tar chemical parts of it, is peculiarly the industry above all others which through research continually adds to the number of useful products for other industries. Important developments are now in progress in Synthetic Ammoniates for fertilizers, Synthetic Nitrates and Nitric Acid, Synthetic Oxalic and Formic Acids, Synthetic Gallic Acid, Synthetic Camphor, Oleum and chemicals for oil refining, Saccharine, Permanganates, Photographic chemicals, Ore flotation chemicals, Medicinals and Pharmaceuticals.

5. A coal tar chemical industry is indispensable to the nation in the matter of drugs. A wealth of valuable coal tar medicinals, examples of which are aspirin, salvarsan and veronal, have been produced in recent years. The research which is continuous in a coal tar chemical industry has but touched the possibilities in this direction.

6. A dyestuff industry stimulates scientific research as it employs chemists, engineers and physicists to the extent of about 10 per cent of its total personnel. This personnel constantly adds to the sum total of scientific knowledge and is invaluable in time of war.

7. The American dyestuff industry has grown from nothing to a large industry in less than four years and has shown itself worthy of every aid and encouragement. Though hampered by lack of many supplies and the diversion of its personnel and facilities to war activities the industry produced 45,977,246 pounds of dyes alone in 1917, and 56,464,446 pounds in 1918. The average selling price per pound for the production in 1917 was $1.26 and for 1918 $1.07. (See Tariff Commission Report 1918, "Dyestuffs and Related Coal Tar Chemicals.") It is doubtful if any other industry can show a decrease in selling price during this period of ever-increasing cost of raw materials and labor, and it may be stated with certainty that this reduction was accomplished through chemical efficiency and healthy domestic competition. Figures are not yet available for 1919, but there is every indication of still further progress in this respect. It is noteworthy that during 1919 a number of dyestuffs very difficult of manufacture, have been added to the list of American colors. These include brome-indigo, true alizarine colors, developed black, auramines, chrysophenine, and the first commercial production of the vat dyes.

8. It is one more American industry

to add to the prosperity and well-being of the whole people.

License Feature Necessary

It is the belief of the Manufacturing Chemists' Association of the United States that legislation embodying a tariff coupled with a system of regulation of imports by license is necessary for the adequate protection of the industry.

The licensing plan is the only method that has so far been devised, which furnishes an elastic method of admitting dyes and related coal tar products that are essential to the textile and other consuming industries, while shutting out dyes and related coal tar products that are produced domestically.

It is a plan to regulate, not to prohibit, and is above all else, temporary. It does not displace the tariff but is ancillary to it as an additional, and at this time necessary protection to the new industry.

Practically the entire industrial world has adopted new dyestuff regulations based on their recent experiences in war. England has partially subsidized her industry and adopted a license system for imports. Similar license legislation has been adopted by her most important Colonial possession. France has adopted a license system for imports and not only raised her tariffs but also provided a sliding scale of increased duties while Japan has increased her tariffs and prohibited imports except under license.

Is America to open its doors to each of these countries without suitable import regulations to promote domestic dye manufacturing?

This method has the endorsement of the important consumers in this country, including practically every line of industry concerned. No solid progress is possible unless consumers are in sympathy with the means employed to promote its development. Large sums must be set aside for research and development, to be followed by capital investments in buildings and apparatus when processes are perfected and dyes of satisfactory standard to consumers produced. There is, therefore, a mutual responsibility that would make it reckless in the extreme to proceed without tangible assurance of fair support.

Therefore, the Manufacturing Chemists' Association of the United States urges the speedy enactment of suitable legislation of the character set forth in the Longworth bill, H. R. 8078.

Announcement has been made by the American Fabrics Company that this concern has acquired the business heretofore conducted under the name of International Textiles, Inc. The business will hereafter be known as the American Fabrics Company.

To manufacture silk and other textile fabrics, the Salvador Silk Company has been incorporated under the laws of New Jersey. The capital of the new company is $50,000, and the works will be located in Paterson.

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AMERICAN DYESTUFF REPORTER

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A. P. HOWES, President
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ANYTHING—EXCEPT RESULTS

For substantially six days, from Monday to Saturday three weeks' ago, the specially appointed sub-committee of the Finance Committee of the United States Senate sat and heard testimony relative to the Longworth bill and particularly the licensing feature of that bill. The licensing clause is the real life of the measure; without provision for this kind of protection, which has unhesitatingly been adopted by England, France, Italy, Japan and other countries which have had the ordinary, common horse-sense to recognize the true meaning of a self-contained coal tar chemical industry—and the proper method for obtaining one—the Longworth bill is even as the sweet singing of canary birds in the tree-tops. It is admirably phrased in the choicest of legal English, it looks well in print, and the letters of which its words are made up form an artistic contrast of black against white paper upon which they repose. The press-work done at the Government printing plant which turned out the copies is excellent, the manuscript has been carefully proof-read and there are no typographical or grammatical errors anywhere in the document. Our Senators, on passing it, might easily sit back for a moment, smilingly rubbing their hands under the impression that they had enacted a piece of legislation!

But it would not be the first time that a stable window has carefully been locked and the door left wide ajar to tempt the first equine-fancier who happens along. Nor would it be the first time the Senate has ably demonstrated its ability to expend a maximum amount of effort to achieve a minimum of result. For, after all, its members are but human—though some have doubted this—and the commission of errors is generally conceded to be a pet weakness—or specialty—of us humans. At any rate, anyone is liable to be fooled now and then, and fooled the Senate certainly will be if it passes the Longworth bill without the licensing provisions and then expects it to protect and insure the future of the dye industry in this country.

On the second day of the sessions a despatch to a contemporary stated that the worthy sub-committeemen "showed indications that they were very tired of hearing witness after witness tell why the dyestuff should be fostered and protected in the United States."

Only fancy!

We don't doubt it in the least. Nor do we doubt but that members of this body are firmly convinced that that a coal-tar chemical industry is necessary and that their weariness arose from the fact of their being already "sold" on this proposition. They have practically conceded this, and openly. Yet beyond this point the Senatorial brain, for some unexplained reason, apparently ceases to function as such and the results, so far as the industry is concerned, can become just the same as though all were violently opposed to having American dyes now or ever, and were determined that in the event of another war the United States should lose a full year or so and countless lives before we could begin to fight—if, indeed, we *could* begin to fight by the time the handicap was overcome.

In other words, they are willing to grant that the industry is essential to our future safety, and willing to grant that a high tariff on dyes, particularly at present rates of exchange now that the German mark is worth about one-tenth of its normal value in American money, would be inadequate protection, and to grant, in fact, almost anything under the sun—except results!

It is understood that they fear the licensing scheme could not be enacted by the Senate by reason of political opposition, and that for this reason they may not include it in the bill when it is reported out. This is serious. Seeing the danger, the Tariff Commission has thrown itself into the breach with a compromise scheme, the nature of which has not been made public. A conference with the committeemen has taken place, the results of which will not be known until some time after January 5, when the Senate will reassemble.

The attitude of the REPORTER on a question of this kind has already been stated clearly. Our words on May 26 of the present year relative to the licensing clause, were: "He who has a better plan to suggest is no friend to the dye industry if he fails to indicate it, nor will he do half as much damage to the chances of either his scheme or the original one as would a whole flock of picayune wranglers over abstruse points."

We doubted at that time if a better scheme could be proposed, and still doubt it. Yet . . . we have once or twice been accused—notably by Congressman J. Hampton Moore, Mayor-elect of Philadelphia—of bigotry and bias and whatnot; hence, let us be heard further, still quoting from a former issue: "If you really are a second Solomon and your scheme provides for a big, sweeping change from top to bottom—a change so logical and sound that the entire industry can be converted to it overnight—why, then, let us have it. Otherwise . . . 'no pikers need apply!'"

Something is certain to be done, and done soon. The next scheduled interlude in the Congressional session which starts early next month probably will not occur until early August, when the trees will be in full bloom—and the canary birds will be singing therein.

And by that time, speaking either from the standpoint of the American industry or the German Kartel, we shall have results.

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NEW YORK CITY

PHILADELPHIA CHARLOTTE

DYEING OF UNION FELTS

By J. A. Wilson, B.Sc.

It is only since the year 1910 that the dyeing of felted union fabrics, at least in the great variety of shades now existing, has assumed any importance.

Previous to this time several grades of merchandise were on the market in a few colors, but a complete line of shades such as are now to be had in various qualities was unknown in this country.

Let me say in the first place that the dyeing of union felts is a much more difficult matter than in the case of woven goods because in the latter case, the warp being generally of cotton, is for the most part concealed and it is not absolutely important to get a dead match as in the case of felted goods where the wool and vegetable fibers are mixed together and the slightest divergence in tone between the fibers is so apparent as to render the merchandise unmerchantable.

In Europe, and more particularly in Germany, union felted fabrics have been produced in large quantities since the year 1898, largely due, of course, to the advent of the direct dyeing coloring matter.

The German felt factories, at least the most important ones, installed special dyehouses where this work could be carried out without interruption and interference and where the dyer could devote all his attention to this part of his duties, and what is more important, the dye vats and other parts of the installation were used only for the work for which they were intended.

This in itself is a great advantage inasmuch as the dyer is not compelled to be incessantly boiling out his vats after use in acid colors, and the consequent danger of streaks and stains from dirty barrows and other utensils.

There are in this country, as well as in Europe, three distinct classes of felted merchandise, composed for the most part of wool and cotton, but in some cases this latter is substituted by other vegetable fibers, such as ramie, jute, hemp, flax, and also sometimes an addition of silk noils is made to the blend.

Shoe upper felts contain as high as 50 per cent vegetable fiber.

So called trimming or superfine felts generally in three grades, contain 70, 50 and 30 per cent of cotton, respectively.

Saddle and pad felts used for a variety of purposes and made in a great range of quantities, frequently contain vegetable fibers not in the form of, say, raw cotton, but in the form of low wastes from other industries, shoddies, and similar products.

There are many other lines of merchandise, where union mixtures are to be dyed, but in general the above classification is peculiar to all countries where union felts are manufactured.

The first of these three classes, namely, shoe upper felts, occur in various weights from 16 to 38 ounces per yard, generally 60 inches wide, and are for the most part very hard fulled or milled, a 40-yard piece on the card being generally made to finish 30 yards and even less in some cases.

This class of merchandise is not very easy to manufacture to meet the rather stringent demands of the felt slipper manufacturers, and is frequently a cause of much trouble in the factory. The colors in demand are reds, maroons, clarets, browns, navy, and in still later years there has been a constant demand for light shades to match the all wool qualities of merchandise.

In this country this class of felt must be able to stand the wet process used in the manufacture of high class slippers and shoes, and this calls for great care in the choice of suitable coloring matters as well as great experience in the handling of the goods in the process of dyeing.

The dyer is frequently confronted with difficulties. The faulty blending of unsuitable wools and noils, carbonized and uncarbonized wools, and even slipe, and pulled wools, and then there arises trouble very frequently with bad work due to the careless use of bad and defective wastes.

During my long experience in this and other countries I have always endeavored to use the fewest number of materials in making up blends for these fabrics, in order to give the dyer the chance to get the very best results.

Many manufacturers have run into all sorts of trouble through neglect of these precautions due to their ignorance of the principles of dyeing.

Union shoe felts made in the U. S. A. are generally manufactured in such a manner that the vegetable fibers occur in the middle of the goods and, therefore, are more or less covered up, the manufacturer using, as a rule, as little face and especially back, as possible, in order to keep the cost as low as possible, the face being composed of wool in the form of shoddy and as little as possible new wool being employed. A typical formula is 24 to 30 pounds face; 30 to 36 pounds middle, and 6 to 8 pounds back.

Naturally the back is only just covered up, and it is exactly here that the trouble arises for the dyer, in preventing bleeding in the process of putting on the upper during the manufacture of the slipper.

One of the greatest troubles in dyeing maroon and clarets is the use of dyestuffs not sufficiently soluble in water, and which rush too quickly on the goods, producing invariably a glaze on the finished goods and marking off badly during lasting. The remedy for this is to employ very soluble coloring matters and the smallest quantity of salt and other leveling agents.

A very frequent source of trouble is the occurrence of burs and shives on the face of the goods, which, if certain coloring matters are employed, cause a kind of streak running down the bur. Benzo Purpurine is very liable to produce this effect, and it can be prevented by submitting the goods to a very weak ammonia bath at a low temperature previous to dyeing.

As mentioned above, the face of the goods is generally composed of shoddy and enough real wool to produce the desired result, especially as regards producing a hard felt which will stand up well in the finished slipper. The shoddy employed is a certain variety to dye blacks, blues and browns, and for red, maroon and clarets and similar shades the so-called red shoddy is used.

At various times the dyer observes quite a variation in the results he obtains on these goods due to the wide divergence in the make up of the shoddy, and frequently taxes all his skill to get absolutely the right result; in fact, I know of no form of union dyeing so puzzling as this at times.

Another very frequently occurring cause of trouble is that caused through the use in fulling and washing, of soaps containing too much resin, which gives rise to irregularities in respect to fastness to washing. I had this same trouble twenty years ago in England and it required a lot of patient research to locate the cause of the trouble.

Trimming felts of cotton and wool are used for a variety of purposes, such as shoe linings, cheap pennants, toys

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and linings in general, and vary in weight from 8 to 16 ounces per yard. They are only loosely fulled and will not stand protracted handling in the dye bath. In Europe these goods are dyed in a machine similar to a jigger, which permits the handling, without injuring the material.

Saddle felts are only made in a few colors and the dyeing of these goods does not call for special mention except that in England and Germany they are dyed in such a manner as to be able to stand weighting with barium and similar compounds.

As to the choice of coloring matters, inasmuch as my experience dates only up to the beginning of the war, I can only quote the types I had found suitable at this time:

Brilliant Azurine.
Benzo Azurine G.
Diamine Scarlet B.
Benzo Fast Scarlet.
Diamine Fast Red B.
Diamine Sky Blue.
Chicago Blue B.
Benzo Brown.
Metol Brown.
Diazo Brown B.
Rhodamine B & 6G.
Rhoduline.
Metol Yellow.
Thiazole Yellow.
Pluto Brown.
Oxy Diamine Yellow.
Erie Brown GrR.
Benzo Fast Black.
Diazo Black.
Benzo Black.
Direct Fast Pink.
Direct Yellow R.
Benzo Rhoduline B.

In addition the usual neutral wool and cotton dyeing coloring matters are necessary, but these are so well known that they need not be mentioned here.

Certain shades, especially very bright blues, greens and especially the bright pinks used extensively as slipper linings cannot be produced by the direct method.

In order to produce these, one must resort to the two bath method mordanting the cotton with tannic acid and antimony salts. In Europe the trade in these lines is so important, especially in pink and baby blue and similar shades, as to render necessary special arrangements for mordanting the cotton in a continuous manner.

In view of the high price of wool at the present time the demand for union felts will no doubt continue to increase and in this way the demand for suitable dyestuffs will be maintained.—*Fibre & Fabric.*

ELECTROLYTIC BLEACH

By A. G. Betts

An American patent has been taken out by the writer in reference to the hypochlorites used in bleaching which are technically limited to the chlorine compounds of caustic lime and caustic soda. The reactions are:

$$2Cl+2NaOH=NaOCl+NaCl+H_2O$$
$$2Cl+CaO_2H_2=CaClOCl+H_2O$$

The product then contains equimolecular quantities of hypochlorite and chloride. The second reaction is that taking place when chlorine is absorbed in slacked lime, the universal method of making bleaching powder.

The chloride of lime is dissolved in water as well as possible, and there is a good deal of insoluble matter or sludge which is somewhat objectionable. The bleach is essentially an oxidizing solution, the function of the oxygen being to burn or oxidize the coloring matters and non-celluloses:

$$CaClOCl=CaCl_2+O$$

This bleach solution is always alkaline owing to the presence of free lime in the bleaching powder, which renders the bleaching slower and less active. The solution can, of course, be exactly neutralized with sulphuric acid, but this is objectionable in some ways, and is not generally done. If the solution is partly neutralized, not much is accomplished, and if overdone the results are not only bad, but unpleasant.

The use of a lime bleach has certain objections, such as the precipita-

tion of insoluble lime compounds in the fibers, making them harsh, so when the cost permits the lime bleach is first converted to soda bleach with soda ash, carefully using some sodium bicarbonate to correct alkalinity.

To explain electrolytic bleach and its manufacture, if a solution of common salt, sodium chloride, is electrolized with an insoluble anode, that is graphite or platinum, and graphite, platinum or iron, cathode, using 4 or 5 volts per cell, primarily the salt is decomposed by the electric current thus:

$$NaCl = Na + Cl$$

The sodium is liberated at the cathode, but not as metallic sodium, on account of the presence of water with which sodium reacts thus:

$$Na + H{\cdot}O = NaOH + H$$

evolving hydrogen gas, which bubbles away, and a solution of caustic soda results at the cathode. As chlorine is somewhat soluble in water, a solution of chlorine simultaneously appears at the anode. The two solutions mix almost immediately because of the motion of the solution which is actively maintained by the streams of hydrogen bubbles and reacts thus:

$$2NaOH + 2Cl = NaOCl + NaCl + H{\cdot}O$$

As this mixing must go on continuously no diaphragms are permissible as in electric caustic soda plants, making the plant much simpler and cheaper.

The product is a solution of sodium hypochlorite and unchanged salt, and if a neutral solution is used the product is neutral. As the treatment of the solution is continued for conversion of salt to hypochlorite, unfortunately, the hypochlorite itself reacts to a greater and greater extent as its strength increases, both at the cathode and to a less extent at the anode, so that to realize a reasonable efficiency of the electric current and get output from the cells the process has to be cut off while much salt remains undecomposed, or practically the salt solution has to be fed to the cells at a sufficiently rapid rate so that the overflow contains quite a little less hypochlorite than would be desired, except in cases where salt is very cheap, when the salt consumption would not make so much difference.

Principally the loss of the hypochlorite arises because it is again reduced by the electric current back to salt, and there is also a comparatively smaller loss of hypochlorite by oxidation to the useless chlorate at the anode. The hydrogen bubbles coming off at the cathode have no reducing effect, but the reduction takes place at the cathode surface. There have been certain ways of preventing this cathode reduction, but they have no value for electrolytic bleach. One method is to use platinum cathodes and add to the solutions sodium chromate or bichromate, which acts very perfectly in preventing reduction, but the platinum, of course, is very expensive and the chromates impart a very persistent yellow color. The other method, of adding calcium chloride to the solutions, which plasters the cathodes with a deposit of calcium hydrate, is very imperfect, and causes more loss by increasing the voltage, and hence power consumption, more than it is worth, and also causes a good deal of hypochlorite to go over into chlorate.

The writer made the discovery that if a magnesium cathode is used there is practically no cathode reduction, owing to the formation automatically of a film of magnesia hydrate on its surface, which prevents the hypochlorite from reaching the actual cathode surface. By the use of this cathode it is possible to increase the current efficiency, percentage of salt converted to hypochlorite and strength of the solution in available chlorine. The electrolytic bleach made with magnesium cathodes is necessarily and automatically completely neutral, and it has been found that neutral electrolytic bleach is materially more active and efficient than bleaches prepared by chemical methods.

In general, in making electrolytic bleach the salt used should be free from calcium and magnesium salts, and if present they should be removed by soda treatment and heavy metals, iron, lead, copper, etc., should be avoided in construction, which should rather be of concrete with wood solution pipes, or better, of tile or stoneware.

The preparation of electrolytic bleach is an extremely simple process, requiring merely to cause a solution of salt water to flow to the cells, which are themselves simple, and the overflow passes to the bleach storage tank.

The plant is much simpler and cheaper than electrolytic caustic soda and lime bleach plant, and has much to recommend it, except in cases where salt and power are expensive. The actual cost of production of bleach by electrolysis will, of course, vary from place to place, according to scale on which operations are conducted, cost of power, cost of salt, etc. One important thing about it is that it can be used advantageously on a small scale as well as on a large supervision are required to operate the process.

The loss of magnesium is very small. Magnesium is somewhat attacked by salt water, although the action is very slow, but while the electric current is passing the magnesium is actually covered with a thin film of the electrolytically produced caustic which protects it.

To manufacture, bleach and dye silks and other textile fabrics, the Qualitee Silk Dyeing & Finishing Company has been incorporated under the laws of New Jersey with a capital of $100,000. The headquarters of the new concern will be located at 9 Colt Street, Paterson.

The Bamberg Mills, Bamberg, S. C., which are controlled by the Seaboard Mills Company, will erect an additional building and install a large amount of new machinery. The building and equipment is to cost about $350,000.

INQUIRY DEPARTMENT

All classes of chemical work or advice relating to artificial colors, natural dyestuffs, dyewoods, raw materials, extracts, intermediates, crudes, or dyeing chemicals and accessories in general, will be carried out for readers and subscribers of the AMERICAN DYESTUFF REPORTER by this department.

Inquiries of a minor character will be answered on this page, while major matters involving personal investigation, analyses, perfected processes and working formulas, will, if desired, be treated confidentially through the mails. All questions, materials for analysis or letters leading to the opening of negotiations for special work will receive prompt attention if addressed to Inquiry Department, American Dyestuff Reporter, Woolworth Building, New York City.

N. K. M.—*Question.*—Would you kindly advise a formula for the dyeing of wool, on the skin, black or other colors? This, of course, would include a method of curing the skin. We would like to obtain this information for the purpose of dyeing sheepskins for wool rugs.

Answer.—The skins must first be "fleshed" with a fleshing knife and all meat and fat removed from the back. They are then scoured with soap at not over 120 deg. Fahr. to remove grease from the wool, and then rinsed free of soap. A bath of bleaching lime at 2 deg. Tw. is often given as it chlorinates the wool and enables it to take the dye better. Another rinse follows and the skins are well drained or whizzed free from excess water. The flesh side is then sprinkled liberally with a mixture of half and half powdered alum and salt, and rolled up after folding, flesh to flesh down the back. After three days the skin will be in condition for dyeing. If the leather is to be left white, the skin must be stretched on a frame and the color applied with a brush, but if the leather is to be colored also the dyeing may be done in a tub. The dyes used are the basic colors, such as Chrysoidine, Bismarck Brown, Victoria Blue, Fuchsine, Rhodamine, Auramine, Basic Black, Malachite Green, etc.

The dyes are all applied at 120 deg. Fahr. with about four ounces of alum for each skin, dyeing for about half an hour. Then rinse the wool and drain, or whiz, and dry on a frame. After drying, work the skin until flexible and comb the wool free from tangles with a hand card. The desired shade to be secured on the wool may be ascertained by using various percentages of the dyestuffs and testing out on skeins of white woolen yarn.

NEW PROCESS FOR EXTRACTING WOOL GREASE

A company has been formed in Melbourne for the purpose of exploiting a new process for extracting grease (*adeps lanae*, the base of lanoline) from wool, and for the manufacture of special neutral wool scouring and other soaps. The principal supply of lanoline in pre-war times, it is stated, was drawn from Belgium and Germany. The method of treatment was a trade secret, and no public description is in existence, but it is known that sulphuric acid was used in the final process of refining. In the new Australian process no sulphuric or other acid is used, and the product of the process is wholly animal and pure. A small plant has already been erected and the process tested sufficiently to prove that by it *adeps lanae* can be produced in commercial quantities at very cheap cost. Some of the product has already been sold to leading wholesale druggists, who report it to be of very high quality. The company just formed has acquired the Australian manufacturing rights.

Persons interested can obtain the address of the inventor of the process from the Bureau of Foreign and Domestic Commerce, or its district or cooperative offices, by referring to file No. 40859.

NEW YORK CHEMISTS ELECT

The annual meeting of the New York Section of the American Chemical Society was held at the Chemists' Club, December 5. The attendance was very large and the secretary's report showed a total membership of 2,140. The annual election resulted in the choice of the following officers and councillors for the ensuing year:

Chairman, Ralph H. McKee; vice-chairman, John E. Teeple; secretary and treasurer, Herbert G. Sidebottom.

Executive Committee—D. W. Jayne, C. H. Herty, F. J. Metzger, K. G. MacKenzie.

Councillors—Ellwood Hendrick, R. H. McKee, D. W. Jayne, A. C. Langmuir, W. P. Cohoe, J. M. Matthews, David Wesson, H. C. Sherman, J. C. Olsen, G. W. Thompson, Charles Baskerville, T. L. Briggs, H. E. Hill, J. M. Nelson, F. E. Dodge, K. C. MacKenzie, R. P. Calvert, L. H. Cone, J. R. M. Klotz, F. J. Metzger, H. R. Moody.

The program of the evening consisted of two papers. "New Methods of Food Dehydration," by K. G. Falk, excited considerable interest and discussion, while the second paper on "Emulsions," by A. W. Thomas, was also well received.

It is reported on good authority that the Henrietta Mills, at Henrietta and Caroleen, N. C., will build a 50,000 spindle additional mill.

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NOTES OF THE TRADE

To conduct a commission business, the Alberger Chemical Machinery Company has been incorporated under the laws of New York with a capital of $5,000. Offices will be located in Manhattan, and the incorporators consist of F. Goldberger, F. Fein and J. Lubow.

To deal in textiles the Buffalo Wholesale Dry Goods Company, Inc., has been incorporated under the laws of New York with a capital of $50,000. Headquarters will be located in Buffalo, and the incorporators include R. G. Kinke, L. Lensenhuber and E. Krag.

Under the laws of New York the Rockland Finishing Company has been incorporated to operate a print and dye works and to make textiles. The concern has 50,000 shares of common stock, of no stated par value, and an active capital of $2,000,000. The incorporators consist of H. A. Hatch, E. C. House and L. Semple, and headquarters will be located in Haverstraw, New York.

Exclusive of the 12,000 or 13,000 bales of crossbreds already shipped to Boston for auction by the British Government, no more wools will be sent here from that country for the present, according to an announcement by Harry Hartley, local representative in charge of English wool shipments. The wools mentioned will not be offered to the trade until next year.

Alexander Cotton Mills Company has been organized at Taylorsville, N. C., to build a 5,000-spindle mill, using electric power. Capital, $250,000; president, S. G. Earp; vice-president, R. A. Adams; secretary and treasurer, A. E. Watts; general manager, James Watts.

Announcement has been made to the trade that the arrangement by which Aniline Dyes & Chemicals, Inc., of New York City, have acted as exclusive sales agents for the intermediates and aniline colors manufactured by the Ault & Wiborg Company, Cincinnati, Ohio, expired by mutual consent on December 31, and that after that date each of these firms will act independently.

The York Knitting Mills Company, Queen Street, Toronto, has just completed the installation of a dry spun worsted department with a capacity of 12,000 pounds of dry spun yarn per week. The addition of this plant was originally decided upon no less than five years ago, but owing to the war the company was unable to secure the necessary machinery.

Among the colors being offered by S. R. David & Co., Inc., of Boston, is Violamine DS, which is said to be of excellent fastness to light, fulling and alkalies and is valuable likewise because of its extremely level dyeing qualities. This dye can be added at the boil and gives practically the same shade when used either as an acid or as a chrome color. It is also very useful for shading either acid or chrome colors. Violamine DS on silk is fast to water, and is announced to be a satisfactory color for tin weighted silk.

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